## Case 2415

## *Holothuria arenicola* Semper, 1868 (Echinodermata, Holothuroidea): proposed conservation of the specific name

David L. Pawson

*National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560, U.S.A.*

John E. Miller

*Harbor Branch Oceanographic Institution, Inc., Fort Pierce, Florida, 33450 U.S.A.*

**Abstract.** The purpose of this application is the conservation of the well established name *Holothuria arenicola* Semper, 1868, for a burrowing holothurian, by the suppression of the senior synonym *Holothuria humilis* Selenka, 1867.

---

1. *Holothuria arenicola* Semper, 1868 (p. 81) was originally described from the Philippines. This distinctive burrowing holothurian is very common throughout the tropical regions of the world, and it is one of the best known tropical shallow water species. The specific name *arenicola* Semper, 1868 is universally accepted, and has been used in a large number of systematic and ecological publications. A list of ten representative works is held in the Secretariat offices.

2. *Holothuria maculata* Brandt, 1835 is a senior synonym of *H. arenicola* but it is also a junior primary homonym of *H. maculata* Chamisso & Eysenhardt, 1821 and *H. maculata* Lesueur, 1824. It is therefore invalid and has been replaced by the oldest available synonym, which is *H. humilis* Selenka, 1867.

3. Selenka (1867, p. 339) briefly described *Holothuria humilis* from Hawaii. Lampert (1885, p. 70), Théel (1886, p. 640) and Fisher (1907, p. 640) based their diagnoses of *H. humilis* on Selenka's original (1867) description; none of these authors examined Selenka's type specimens, and, as far as we have been able to determine, only they seemed to regard *H. humilis* as a distinct species. Fisher (1907) noted that Hawaii constituted the only recorded locality for *H. humilis*, and in the same paper recorded *H. arenicola* from Hawaii for the first time.

4. Deichmann (1930, p. 68), in her revision of the western Atlantic holothurians, noted that 'synonymous with this species [*H. arenicola*] are *H. humilis* Selenka from Hawaii. . .' She made no further comment on this topic.

5. We have examined the holotype of *H. humilis* Selenka, 1867 (Museum of Comparative Zoology, Harvard University, Catalogue No. 632), and we agree with Deichmann that it is synonymous with *H. arenicola* Semper, 1868. In all currently accepted systematic characters, Selenka's holotype falls within the range of variation of *H. arenicola*. Thus, Selenka's (1867) name *Holothuria humilis* threatens the well-established name *H. arenicola* Semper, 1868.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the specific name *humilis* Selenka, 1867, as published in the binomen *Holothuria humilis*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Specific Names in Zoology the name *arenicola* Semper, 1868, as published in the binomen *Holothuria arenicola*;

(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *humilis* Selenka, 1867, as published in the binomen *Holothuria humilis*, and as suppressed in (1) above.

## References

**Deichmann, E.** 1930. The holothurians of the western part of the Atlantic Ocean. *Bulletin of the Museum of Comparative Zoology, Harvard*, **71**(3): 41–266.

**Fisher, W. K.** 1907. The holothurians of the Hawaiian Islands. *Proceedings of the United States National Museum*, **32**: 637–744.

**Lampert, K.** 1885. Die Seewalzen (Holothuroidea), part 3, i + 312 pp, *in* Semper, C. G. *Reisen im Archipel der Philippinen II*, vol. 4. Leipzig and Wiesbaden.

**Selenka, E.** 1867. Beiträge zur Anatomie und Systematik der Holothurien. *Zeitschrift für Wissenschaftliche Zoologie*, **17**: 291–250.

**Semper, C. G.** 1868. Holothurien. *Reisen im Archipel der Philippinen II*, vol. 1, i + 288 pp. Leipzig and Wiesbaden.

**Théel, H.** 1886. Report on the Holothuroidea. Part III. *Report of the scientific results of the voyage of HMS Challenger* (Zoology, Part 39), vol. 14. London, Edinburgh and Dublin.

Contribution No. 538 of the Harbor Branch Oceanographic Institution, Inc., and Contribution 113 of the Smithsonian Marine Station at Link Port.